

A very warm and dry month

Rainfall	Rainfall was below normal (50-79% of normal) or well below normal (<50% of normal) for large swaths of New Zealand, including Northland, Auckland, Waikato, Bay of Plenty, Taranaki, coastal Manawatu-Whanganui to Wellington, Nelson, Tasman, interior Canterbury, much of the West Coast, Otago, and parts of Southland. Meanwhile, isolated pockets of near normal (80-119% of normal) to above normal (120-149% of normal) rainfall was observed from coastal Hawke's Bay to Wairarapa, coastal northern and southern Canterbury, and Fiordland.
Temperature	Temperatures were well above average (>1.20°C of average) nearly everywhere in New Zealand. Isolated above average (0.51-1.20°C of average) temperatures were observed in Gisborne, inland Hawke's Bay, and a small area of the Far North.
Soil Moisture	As of 1 January, soils were significantly drier than normal for the time of year across a large portion of the North Island, Tasman and northern West Coast, interior Canterbury, and much of Southland and interior Otago. Soil moisture was slightly below normal to near normal for much of coastal Canterbury and Otago. Meanwhile, near normal to above normal soil moisture was observed along the east coast of the North Island, coastal Marlborough, and Westland to Fiordland.

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Overview

December 2017 was characterised by higher than normal sea level pressure over New Zealand and the surrounding seas. This pressure setup, consistent with La Niña conditions, resulted in long periods of dry, settled, and very warm weather across the country throughout the month.

Below normal (50-79% of normal) or well below normal (<50% of normal) rainfall was commonplace for large swaths of New Zealand in December, a product of the higher than normal sea level pressure entrenched across the country. In fact, a large number of locations observed either their lowest or near-lowest December rainfall on record. This included Auckland Airport, which recorded only 8 mm of rain (9% of its December normal), its driest December since records began in 1959. It was also the driest December on record at Paraparaumu Airport since 1945, with only 15 mm recorded. In fact, Paraparaumu experienced a 35-day dry spell that ended on 13 December.

Due to the widespread dry conditions, soil moisture levels continued to run below or well below normal for the time of year across much of the country. At the end of December the driest soils compared to normal for the time of year were found from Northland to Taranaki, Horowhenua, Kapiti Coast, Tasman to interior Canterbury, and southern Southland.

The persistence of higher than normal pressure also resulted in well above average (>1.20°C of average) temperatures nearly everywhere in New Zealand. This was further enhanced by sea surface temperatures (SSTs) in New Zealand coastal waters and the Tasman Sea that continue to run well above average. SSTs were generally 1 to 3°C above average for the time of year and up to 6°C above average in some parts of the Tasman Sea. A plethora of locations around the country recorded either their warmest or near-warmest December on record. Notably, this included Nelson, which observed its warmest December since records began in 1862, Levin, with records dating to 1895, and Ranfurly, which had its warmest December since 1897.

Further Highlights:

- The highest temperature was 34.7°C, observed at Waiau on 8 December.
- The lowest temperature was 0.2°C, observed at Mt Cook (Airport) and Lake Tekapo on 20 December.
- The highest 1-day rainfall was 130.5 mm, recorded at Milford Sound on 30 December.
- The highest wind gust was 165 km/h, observed at Akitio on 19 December.
- Of the six main centres in December 2017, Auckland was the warmest, sunniest, and driest, Dunedin was the coldest and least sunny, and Wellington was the wettest.

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Rainfall: Very dry in most locations around the country

Below normal (50-79% of normal) or well below normal (<50% of normal) rainfall was commonplace for large swaths of New Zealand in December, a product of higher than normal sea level pressure entrenched across the country. Meanwhile, isolated pockets of near normal (80-119% of normal) rainfall was observed from coastal Hawke's Bay to Wairarapa, coastal northern and southern Canterbury, and Fiordland. These higher rainfall values were primarily due to a couple of coastal lows that set up east of the country late in the month.

Consequently, a large number of locations observed either their lowest or near-lowest December rainfall on record. This included Auckland Airport, which recorded only 8 mm of rain (9% of its December normal), its driest December since records began in 1959. It was also the driest December on record at Paraparaumu Airport since 1945, with only 15 mm recorded. In addition, Taumarunui experienced its driest December on record, with data going back to 1913.

Several lengthy dry spells (defined as less than 1 mm of rain on any day) came to an end on 12-13 December as a front finally brought rainfall to parts of the South Island and lower North Island. A dry spell at Christchurch Airport reached 47 days, the longest on record there. In the lower North Island,

dry spells in Wellington (30 days), Paraparaumu (35 days), and Martinborough (35 days) ended on 13 December. In Whanganui, a 42-day dry spell came to a close on 19 December.

As of 1 January, soils were significantly drier than normal for the time of year across a large portion of the North Island, Tasman and northern West Coast, interior Canterbury, and much of Southland and interior Otago. Meanwhile, near normal to above normal soil moisture was observed along the east coast of the North Island, coastal Marlborough, and Westland to Fiordland. The persistent dryness led to meteorological drought in December, whose impacts caused Minister Damien O’Conner to classify much of the lower North Island as a medium scale adverse event.

Record¹ or near-record December rainfall totals² were recorded at:

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
High records or near-records				
Secretary Island	618	158	1985	3rd-highest
Low records or near-records				
Kaitaia	16	16	1948	Lowest
Auckland (Western Springs)	17	18	1948	Lowest
Matamata	10	11	1951	Lowest
Rotorua	23	16	1963	Lowest
Auckland (Airport)	8	9	1959	Lowest
Whatawhata	20	16	1952	Lowest
Hamilton	15	14	1935	Lowest
Taumarunui	29	21	1913	Lowest
Paraparaumu	15	18	1945	Lowest
Reefton	30	16	1960	Lowest
Mt Cook (Airport)	51	10	1928	Lowest
Whitianga	21	17	1961	2nd-lowest
New Plymouth	23	19	1944	2nd-lowest
Palmerston North	20	21	1928	2nd-lowest
Takaka	31	18	1976	2nd-lowest
Arapito	74	34	1978	2nd-lowest
Cromwell	9	19	1949	2nd-lowest
Clyde	9	18	1978	2nd-lowest
Cape Reinga	7	9	1919	Equal 2nd-lowest
Warkworth	12	11	1966	3rd-lowest
Westport	55	29	1944	3rd-lowest
Leigh	18	23	1966	4th-lowest
Auckland (Albany)	36	38	1966	4th-lowest
Paeroa	22	24	1914	4th-lowest
Te Puke	29	21	1973	4th-lowest
Pukekohe	27	27	1944	4th-lowest

¹ The rankings (1st, 2nd, 3rd.etc) in all Tables in this summary are relative to climate data from a *group* of nearby stations, some of which may no longer be operating. The current climate value is compared against all values from any member of the group, without any regard for homogeneity between one station’s record, and another. This approach is used due to the practical limitations of performing homogeneity checks in real-time.

² Rainfall totals are rounded to the nearest whole number.

Turangi	53	39	1968	4th-lowest
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Temperature: Widespread record-breaking warmth

The nationwide average temperature in December 2017 was 18.1°C (2.4°C above the 1981-2010 December average from NIWA's seven station temperature series which began in 1909). December 2017 was the 2nd-warmest December on record for New Zealand using the seven-station series. In addition, December 2017 is only the third month in the 21st century to have a nationwide temperature more than 2.0°C above average (after February 2016 and May 2016).

Temperatures were well above average (>1.20°C of average) nearly everywhere in New Zealand in December, except for isolated above average (0.51-1.20°C of average) temperatures that were observed in Gisborne, inland Hawke's Bay, and a small area of the Far North. A plethora of locations around the country recorded either their warmest or near-warmest December on record. Notably, this included Nelson, which observed its warmest December since records began in 1862, Levin, with records dating to 1895, and Ranfurly, which had its warmest December since records began in 1897.

Consistent with record and near-record high mean temperatures for many locations, record and near-record high mean maximum (daytime) and mean minimum (nighttime) temperatures were also experienced. For the third consecutive month, Cromwell experienced a well above average mean maximum temperature (27.0°C). This was 4.5°C above its long-term average for December. Cromwell experienced 23 consecutive days where the maximum temperature reached at least 25.0°C dating back to mid-November, with the streak coming to an end on 10 December.

Record or near-record mean air temperatures for December were recorded at:

Location	Mean air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Cape Reinga	19.3	1.9	1951	Highest
Mokohinau	20.3	2.0	1994	Highest
Leigh	20.9	2.8	1966	Highest
Whangaparaoa	20.4	2.5	1982	Highest
Tauranga	19.9	1.9	1913	Highest
Te Puke	18.9	1.9	1973	Highest
Rotorua	18.3	2.3	1964	Highest
Taupo	18.1	2.6	1949	Highest
Auckland (Mangere)	20.5	2.3	1959	Highest
Pukekohe	19.2	2.1	1969	Highest
Whatawhata	19.4	2.6	1952	Highest
Te Kuiti	19.3	2.4	1959	Highest
New Plymouth	18.4	2.2	1944	Highest
Ngawi	19.4	2.1	1972	Highest
Paraparaumu	18.5	2.5	1953	Highest
Levin	18.6	2.5	1895	Highest
Wellington (Airport)	18.8	2.3	1962	Highest
Stratford	16.7	2.3	1960	Highest

Hawera	17.3	2.0	1977	Highest
Wanganui (Spriggens Park)	19.3	2.4	1937	Highest
Takaka	18.5	2.5	1978	Highest
Farewell Spit	19.5	3.2	1971	Highest
Westport	17.5	2.5	1937	Highest
Reefton	18.7	3.3	1960	Highest
Motueka	18.9	2.6	1956	Highest
Nelson	19.4	3.1	1862	Highest
Cheviot	17.9	2.8	1982	Highest
Waipara West	18.7	2.5	1973	Highest
Akaroa	19.6	3.6	1978	Highest
Tara Hills	17.6	3.2	1949	Highest
Wanaka	18.9	3.6	1955	Highest
Ranfurly	16.9	3.5	1897	Highest
Dunedin (Airport)	16.7	2.8	1962	Highest
Dunedin (Musselburgh)	16.6	2.8	1947	Highest
Te Anau	16.3	3.1	1963	Highest
Cromwell	19.2	3.1	1949	Highest
Nugget Point	15.1	2.3	1970	Highest
Auckland (Whenuapai)	19.6	2.2	1945	Equal highest
Dargaville	19.5	1.8	1943	2nd-highest
Whangarei	19.9	1.4	1967	2nd-highest
Auckland (Western Springs)	20.2	2.2	1948	2nd-highest
Whitianga	19.3	1.6	1962	2nd-highest
Paeroa	19.6	1.6	1947	2nd-highest
Whakatane	19.3	1.8	1974	2nd-highest
Hamilton	19.0	2.1	1946	2nd-highest
Wairoa, North Clyde	20.0	1.9	1964	2nd-highest
Palmerston	18.5	2.1	1928	2nd-highest
Wellington (Kelburn)	17.9	2.5	1927	2nd-highest
Arapito	17.6	2.2	1978	2nd-highest
Secretary Island	16.1	2.8	1985	2nd-highest
Puysegur Point	15.7	3.2	1978	2nd-highest
Richmond	19.2	2.8	1862	2nd-highest
Blenheim	18.8	2.1	1932	2nd-highest
Arthurs Pass	14.8	3.3	1973	2nd-highest
Medbury	18.4	3.0	1927	2nd-highest
Waiau School	19.0	3.4	1974	2nd-highest
Mt Cook (Airport)	16.0	3.3	1929	2nd-highest
Le Bons Bay	16.3	2.6	1984	2nd-highest
Oamaru	15.8	1.9	1967	2nd-highest
Manapouri	16.0	3.3	1971	2nd-highest
Five Rivers	16.0	2.7	1982	2nd-highest
Lauder	18.2	3.7	1924	2nd-highest
Clyde	19.0	3.2	1978	2nd-highest
Tiwai Point	15.6	2.3	1970	2nd-highest
Balclutha	15.7	1.8	1964	2nd-highest
South West Cape	14.4	2.3	1991	2nd-highest

Kaitaia	19.6	1.8	1948	3rd-highest
Kerikeri	19.1	1.5	1945	3rd-highest
Hamilton (Ruakura)	19.2	2.2	1906	3rd-highest
Masterton, Te Ore Ore	18.6	2.5	1906	3rd-highest
Palmerston North	18.4	2.0	1928	3rd-highest
Kaikoura	17.5	2.1	1963	3rd-highest
Christchurch (Airport)	18.1	2.3	1863	3rd-highest
Orari Estate	16.5	1.7	1972	3rd-highest
Manapouri (Airport)	16.0	3.0	1963	3rd-highest
Queenstown	17.9	3.3	1871	3rd-highest
Lumsden	15.9	2.6	1982	3rd-highest
Roxburgh	17.2	2.4	1950	3rd-highest
Kaitaia	19.6	1.7	1948	4th-highest
Rotorua	17.7	1.5	1964	4th-highest
Dannevirke	17.6	1.6	1951	4th-highest
Martinborough	18.2	1.8	1986	4th-highest
Greymouth	16.9	2.2	1947	4th-highest
Milford Sound	16.3	2.5	1934	4th-highest
Culverden	18.2	2.5	1928	4th-highest
Rangiora	17.3	1.9	1965	4th-highest
Lake Tekapo	16.2	3.1	1927	4th-highest
Wanaka	18.3	3.1	1955	4th-highest
Alexandra	19.0	2.6	1929	4th-highest
Invercargill	15.7	2.7	1905	4th-highest
Low records or near-records				
None observed				

Record or near-record mean maximum air temperatures for December were recorded at:

Location	Mean maximum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Cape Reinga	22.4	2.1	1951	Highest
Mokohinau	23.0	2.4	1994	Highest
Leigh	25.4	4.3	1966	Highest
Whangaparaoa	24.5	3.0	1982	Highest
Auckland (Whenuapai)	24.7	2.9	1945	Highest
Auckland (Western Springs)	24.9	3.1	1948	Highest
Whitianga	25.1	2.8	1962	Highest
Paeroa	25.5	2.4	1947	Highest
Te Puke	23.9	1.9	1973	Highest
Rotorua	23.8	3.4	1964	Highest
Auckland (Airport)	24.9	3.1	1959	Highest
Whatawhata	25.6	4.4	1952	Highest
Hamilton	25.1	2.9	1946	Highest
Te Kuiti	25.4	3.3	1959	Highest

New Plymouth	23.2	3.5	1944	Highest
Ngawi	23.5	2.5	1972	Highest
Hicks Bay	21.9	1.7	1969	Highest
Wairoa, North Clyde	25.9	2.7	1964	Highest
Paraparaumu	22.6	3.0	1953	Highest
Levin	24.0	4.0	1895	Highest
Wellington (Airport)	22.2	2.6	1962	Highest
Stratford	21.6	2.6	1960	Highest
Hawera	21.8	2.8	1977	Highest
Wanganui (Spriggens Park)	23.9	3.0	1937	Highest
Takaka	25.2	3.8	1978	Highest
Farewell Spit	23.8	3.8	1971	Highest
Westport	22.2	3.9	1937	Highest
Arapito	23.0	3.4	1978	Highest
Reefton	25.5	4.7	1960	Highest
Motueka	25.9	4.2	1956	Highest
Hanmer Forest	26.1	5.0	1906	Highest
Kaikoura	22.6	3.5	1963	Highest
Waiau School	26.3	4.4	1974	Highest
Cheviot	24.6	3.8	1982	Highest
Waipara West	25.0	2.9	1973	Highest
Akaroa	25.5	4.3	1978	Highest
Wanaka	25.3	3.8	1955	Highest
Oamaru	20.5	2.6	1967	Highest
Dunedin (Airport)	22.8	3.4	1962	Highest
Dunedin (Musselburgh)	20.3	3.0	1947	Highest
Queenstown	24.7	4.3	1871	Highest
Lumsden	22.5	3.7	1982	Highest
Cromwell	27.0	4.5	1949	Highest
Clyde	26.5	4.3	1978	Highest
Whangarei	24.8	1.8	1967	2nd-highest
Tauranga	24.3	2.1	1913	2nd-highest
Taupo	24.6	3.9	1949	2nd-highest
Martinborough	24.4	3.0	1986	2nd-highest
Hastings	24.7	2.2	1965	2nd-highest
Palmerston North	24.4	3.3	1928	2nd-highest
Wellington (Kelburn)	21.5	2.9	1927	2nd-highest
Upper Hutt	22.4	2.4	1939	2nd-highest
Greymouth	20.7	2.5	1947	2nd-highest
Puysegur Point	18.3	3.1	1978	2nd-highest
Appleby	23.5	2.7	1932	2nd-highest
Richmond	24.9	4.2	1862	2nd-highest
Blenheim	25.6	3.3	1932	2nd-highest
Arthurs Pass	20.1	4.2	1973	2nd-highest
Medbury	25.1	3.6	1927	2nd-highest
Christchurch (Airport)	24.0	2.9	1863	2nd-highest
Le Bons Bay	20.2	2.7	1984	2nd-highest
Lake Tekapo	23.7	4.2	1927	2nd-highest

Tara Hills	24.8	3.7	1949	2nd-highest
Ranfurly	23.9	3.9	1897	2nd-highest
Manapouri	21.1	3.9	1971	2nd-highest
Five Rivers	22.2	3.4	1982	2nd-highest
Invercargill	21.0	3.5	1905	2nd-highest
Nugget Point	18.6	2.1	1970	2nd-highest
South West Cape	17.3	2.2	1991	2nd-highest
Kerikeri	24.3	1.9	1945	3rd-highest
Whakatane	24.0	1.7	1974	3rd-highest
Pukekohe	24.5	3.1	1969	3rd-highest
Hamilton (Ruakura)	25.6	3.6	1906	3rd-highest
Turangi	22.9	2.0	1968	3rd-highest
Dannevirke	23.0	2.4	1951	3rd-highest
Castlepoint	21.9	2.2	1972	3rd-highest
Wanganui	23.0	2.6	1937	3rd-highest
Secretary Island	19.2	2.9	1985	3rd-highest
Nelson	24.4	3.7	1862	3rd-highest
Mt Cook Airport	22.3	4.2	1929	3rd-highest
Rangiora	23.1	2.3	1965	3rd-highest
Orari Estate	22.6	2.2	1972	3rd-highest
Lauder	25.5	4.5	1924	3rd-highest
Tiwai Point	19.4	2.6	1970	3rd-highest
Balclutha	21.1	2.3	1964	3rd-highest
Dargaville	23.9	2.5	1943	4th-highest
Whitianga	23.9	1.6	1962	4th-highest
Taumarunui	25.0	3.0	1947	4th-highest
Lower Retaruke	24.0	2.3	1966	4th-highest
Masterton, Te Ore Ore	25.4	3.1	1906	4th-highest
Gisborne	25.0	1.8	1905	4th-highest
Waipawa	24.2	1.9	1945	4th-highest
Palmerston North	23.8	3.2	1928	4th-highest
Haast	19.4	2.4	1949	4th-highest
Milford Sound	20.8	2.6	1934	4th-highest
Kaikoura	21.4	2.3	1963	4th-highest
Low records or near-records				
None observed				

Record or near-record mean minimum air temperatures for December were recorded at:

Location	Mean minimum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Mokohinau	17.7	1.8	1994	Highest
Wellington (Airport)	15.3	1.8	1962	Highest
Farewell Spit	15.2	2.5	1971	Highest
Kaikoura	13.6	1.9	1963	Highest
Mt Cook (Airport)	9.7	2.5	1929	Highest
Akaroa	13.8	3.0	1978	Highest

Ranfurlly	9.9	3.1	1897	Highest
Dunedin (Musselburgh)	12.9	2.5	1947	Highest
Te Anau	11.2	3.6	1963	Highest
Roxburgh	11.6	3.0	1950	Highest
Nugget Point	11.6	2.6	1970	Highest
Cheviot	11.2	1.7	1982	Equal highest
Cape Reinga	16.1	1.6	1951	2nd-highest
Leigh	16.4	1.3	1966	2nd-highest
Whangaparaoa	16.3	2.0	1982	2nd-highest
Ngawi	15.4	1.7	1972	2nd-highest
Paraparaumu	14.4	2.0	1953	2nd-highest
Wellington (Kelburn)	14.4	2.1	1927	2nd-highest
Stratford	11.8	1.9	1960	2nd-highest
Secretary Island	13.0	2.8	1985	2nd-highest
Puysegur Point	13.2	3.3	1978	2nd-highest
Le Bons Bay	12.5	2.5	1984	2nd-highest
Tara Hills	10.5	2.8	1949	2nd-highest
Wanaka	12.5	3.5	1955	2nd-highest
Manapouri, West Arm Jetty	10.8	2.7	1971	2nd-highest
Five Rivers	9.8	2.1	1982	2nd-highest
Tiwai Point	11.8	1.9	1970	2nd-highest
South West Cape	11.6	2.6	1991	2nd-highest
Auckland (Mangere)	16.3	1.5	1959	3rd-highest
Nelson	14.5	2.0	1862	3rd-highest
Mt Cook (Village)	9.6	2.4	1929	3rd-highest
Waipara West	12.4	2.2	1973	3rd-highest
Oamaru	11.6	2.0	1967	3rd-highest
Lumsden	9.4	1.7	1982	3rd-highest
Lauder	10.9	2.9	1924	3rd-highest
Alexandra	12.3	2.8	1929	3rd-highest
Gore	10.9	2.4	1907	3rd-highest
Dargaville	15.2	1.2	1943	4th-highest
Auckland (Whenuapai)	14.5	1.5	1945	4th-highest
Hawera	12.8	1.2	1977	4th-highest
Milford Sound	11.8	2.4	1934	4th-highest
Arthurs Pass	9.5	2.4	1973	4th-highest
Culverden	12.1	2.7	1928	4th-highest
Medbury	11.7	2.3	1927	4th-highest
Waiau School	11.8	2.4	1974	4th-highest
Clyde	11.5	2.1	1978	4th-highest
Invercargill	10.7	2.2	1905	4th-highest
Low records or near-records				
None observed				

December climate in the six main centres

December was a very warm month, with well above average temperatures observed at all main centres. Rainfall was well below normal in Auckland, Tauranga, and Hamilton, below normal in Wellington and Dunedin, and near normal in Christchurch. Of the six main centres in December 2017, Auckland was the warmest, sunniest, and driest, Dunedin was the coldest and least sunny, and Wellington was the wettest.

December 2017 main centre climate statistics:

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland ^a	20.5	2.3	Well above average (Warmest Dec)
Tauranga ^b	19.9	1.9	Well above average (Warmest Dec)
Hamilton ^c	19.0	2.1	Well above average (2 nd -warmest Dec)
Wellington ^d	17.9	2.5	Well above average (2 nd -warmest Dec)
Christchurch ^e	18.1	2.3	Well above average (3 rd -warmest Dec)
Dunedin ^f	16.6	2.8	Well above average (Warmest Dec)
Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland ^a	9	11	Well below normal (2 nd -lowest Dec)
Tauranga ^b	29	30	Well below normal
Hamilton ^c	15	14	Well below normal (Lowest Dec)
Wellington ^d	48	58	Below normal
Christchurch ^e	38	81	Near normal
Dunedin ^f	43	54	Below normal
Sunshine			
Location ³	Sunshine (hours)		
Auckland ^a	289		
Tauranga ^b	270		
Hamilton ^g	271		
Wellington ^d	257		
Christchurch ^e	265		
Dunedin ^f	239		

^a Mangere ^b Tauranga Airport ^c Hamilton Airport ^d Kelburn ^e Christchurch Airport ^f Musselburgh ^g Ruakura

³ Tauranga, Wellington and Christchurch record sunshine using Campbell-Stokes manual sunshine recorders, whereas Auckland, Hamilton and Dunedin record sunshine with high-precision electronic sensors.

Highlights and extreme events

Rain and slips

As of 1 December, a Water Alert Level 1 was declared in Waikato District, Hamilton, and Waipa due to a 20% increase in water consumption across the region. This was mostly attributed to people filling swimming pools and using sprinklers due to the warm weather. On 8 December this was increased to Alert Level 2 in Hamilton, after the city had its highest ever December water-use day.

On 4 December, Level 4 water restrictions were put in place in Napier due to critically low reservoirs, but by 5 December the restrictions were eased back to Level 2 after an “overwhelmingly positive response” from residents.

On 9 December multiple slips occurred on SH6 north of Haast due to rainfall.

On 11 December, the Tasman District Council initiated Stage One water restrictions for users on the Waimea Plains as the Waimea River dropped down to “trigger levels” at Wairoa Gorge.

Several lengthy dry spells came to an end on 12-13 December as a front finally brought rainfall to parts of the South Island and lower North Island. The dry spell at Christchurch Airport reached 47 days, the longest on record there. In the lower North Island, dry spells in Wellington (30 days), Paraparaumu (35 days), and Martinborough (35 days) ended on 13 December. In Whanganui, a 42-day dry spell came to a close on 19 December.

On 13 December, heavy rain in Timaru produced over 26 mm, more than three times the amount the town received in all of November. Due to blocked stormwater drains, a number of commercial and residential properties had flooding problems, primarily in the Washdyke area.

On 16 December, Tauranga instituted a total ban on using residential sprinklers and restricted watering to between 5-8 am and 7-10 pm due to concern over the city’s reservoir levels.

On the evening of 18 December, heavy rain brought some street and driveway flooding to parts of Rotorua, including Owhata and Lynmore. Blocked drains allowed the water to reach “car tyre level”. Heavy rain then moved east into the Tauranga area, causing house flooding in the 15th Avenue to Greerton area. It was reported that Fraser Street between 13th and 15th Avenues was “very deep underwater”. Around 1000 homes lost power in the Tauranga suburb of Welcome Bay.

On Boxing Day morning, a front moving across the North Island brought localised flooding to the Wellington region. About a dozen calls came in to Fire and Emergency due to surface flooding. Wellington Airport received 15.8 mm of rain in one hour—more than had fallen in the previous 48 days combined.

Record or near-record December extreme 1-day rainfall totals were recorded at:

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Secretary Island	127	30th	1985	3rd-highest

Temperatures

The first week and a half of December featured very warm temperatures in the South Island, especially in Canterbury and Otago. Some of the warmest temperatures occurred on 8 December due to high pressure and westerly winds descending off the Southern Alps. On that day Waiau reached 34.7 degrees, equalling its December record previously set in 1974. Meanwhile, Hanmer Forest set a new December record at 34.6 degrees, surpassing the previous record of 32.9 degrees that was set only four days earlier on 4 December. Amazingly, despite setting new records twice in four days, the previous record at Hanmer Forest had stood since December 1988 (29 years).

Cromwell experienced 23 consecutive days where the maximum temperature reached at least 25.0 degrees, with the streak coming to an end on 10 December.

On Christmas Day, Christchurch (Riccarton) reached a maximum of 32.0 degrees, the warmest Christmas there in at least 15 years. In Auckland, the temperature reached 25.0 degrees, making it the warmest 25th Dec since 2002 when it reached 25.1 degrees.

Record or near-record daily maximum air temperatures for December were recorded at:

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Mokohinau	27.8	22nd	1994	Highest
Whitianga	30.2	16th	1962	Highest
Taupo	29.8	6th	1949	Highest
Whatawhata	30.2	6th	1952	Highest
Castlepoint	29.7	5th	1972	Highest
Hawera	25.7	9th	1977	Highest
Farewell Spit	27.8	5th	1971	Highest
Hanmer Forest	34.6	8th	1906	Highest
Mt Cook	30.1	5th	1929	Highest
Ranfurlly	31.3	7th	1897	Highest
Lumsden	29.5	16th	1982	Highest
Waiau School	34.7	8th	1974	Equal highest
Te Kuiti	29.8	6th	1959	2nd-highest
Wellington (Airport)	28.1	7th	1962	2nd-highest
Reefton	31.8	6th	1960	2nd-highest
Motueka	30.6	8th	1956	2nd-highest
Cheviot	33.0	8th	1982	2nd-highest
Whangaparaoa	26.8	22nd	1982	3rd-highest
Taumarunui	32.0	6th	1947	3rd-highest
New Plymouth	27.0	22nd	1944	3rd-highest
Stratford	26.2	6th	1960	3rd-highest
Arapito	26.9	17th	1978	3rd-highest
Waipara West	33.2	8th	1973	3rd-highest
Akaroa	33.9	9th	1978	3rd-highest
Manapouri	28.7	7th	1963	3rd-highest
Five Rivers	29.2	7th	1982	3rd-highest

Waiouru	25.5	6th	1962	Equal 3rd-highest
Lower Retaruke	29.5	6th	1966	4th-highest
Martinborough	30.6	17th	1986	4th-highest
Hastings	31.9	11th	1965	4th-highest
Levin	28.1	23rd	1895	4th-highest
Puysegur Point	23.2	7th	1978	4th-highest
Blenheim	33.0	17th	1932	4th-highest
Nugget Point	27.3	2nd	1970	4th-highest
Rotorua	27.1	6th	1964	Equal 4th-highest
Mt Cook (Airport)	29.3	5th	1929	Equal 4th-highest
Le Bons Bay	28.8	9th	1984	Equal 4th-highest
Queenstown	30.8	16th	1871	Equal 4th-highest
Low records or near-records				
None observed				

Record or near-record daily minimum air temperatures for December were recorded at:

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Paraparaumu	19.6	9th	1972	Highest
Farewell Spit	18.8	18th	1972	Highest
Greymouth	18.1	17th	1972	Highest
Secretary Island	16.7	7th	1988	Highest
Kaikoura	20.4	10th	1972	Highest
Akaroa	21.6	10th	1978	Highest
Le Bons Bay	20.2	9th	1984	Highest
Manapouri	16.1	3rd	1972	Highest
Five Rivers	17.7	5th	1982	Highest
Nugget Point	16.4	3rd	1972	Highest
Wanaka	17.9	5th	1972	Equal highest
Te Anau	17.1	8th	1973	Equal highest
Ngawi	20.4	25th	1972	2nd-highest
Wanganui (Spriggens Park)	19.9	18th	1972	2nd-highest
Haast	17.4	7th	1949	2nd-highest
Milford Sound	17.3	7th	1935	2nd-highest
Puysegur Point	17.6	4th	1978	2nd-highest
Waipara West	21.8	10th	1973	2nd-highest
Rangiora	20.5	10th	1972	2nd-highest
Lumsden	17.1	3rd	1982	2nd-highest
South West Cape	15.2	24th	1991	2nd-highest
Hawera	18.3	18th	1977	Equal 2nd-highest
Cheviot	19.4	10th	1982	3rd-highest
Ranfurly	17.2	5th	1897	3rd-highest
Tiwai Point	16.1	9th	1972	3rd-highest
Levin	19.0	18th	1950	Equal 3rd-highest

Wellington (Airport)	19.3	10th	1972	Equal 3rd-highest
Wellington (Kelburn)	17.9	9th	1931	4th-highest
Wanganui	19.6	18th	1972	4th-highest
Hokitika	17.7	17th	1866	4th-highest
Gore	17.2	3rd	1907	4th-highest
Port Taharoa	19.5	18th	1974	Equal 4th-highest
Martinborough	18.8	10th	1986	Equal 4th-highest
Hokitika	17.5	17th	1866	Equal 4th-highest
Low records or near-records				
None observed				

Wind

On 19 December, high winds in Alexandra snapped a power pole and tree on Brandon Street, and there were multiple calls to Fire and Emergency for lifting roofs and broken fences.

Record or near-record December extreme wind gusts were recorded at:

Location	Extreme wind gust (km/h)	Date of extreme gust	Year records began	Comments
Wanaka	82	19th	1992	2nd-highest

Lightning and hail

On 18 December, a lightning strike brought down powerlines on Wairau Road in Hillcrest on Auckland's North Shore, closing the road in both directions.

On 27 December, warm surface temperatures combined with cool air aloft caused thunderstorms in the Coromandel Peninsula, including reports of hail in Matarangi.

Snow and Ice

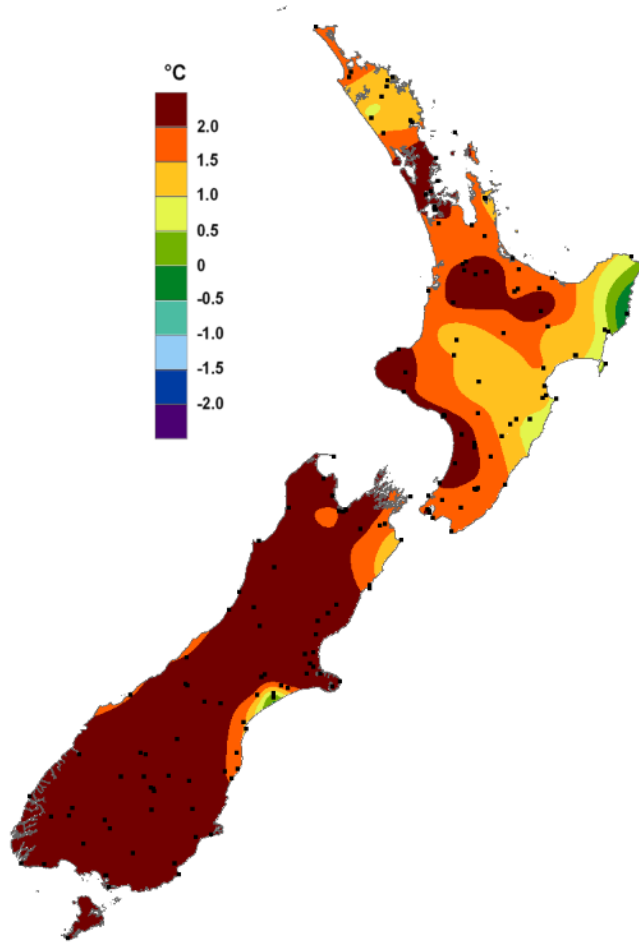
On 27 December, a southerly change brought light snowfall accumulations to the Southern Alps, including a dusting to Mt Hutt ski field. Light frosts were reported in Tekapo, Alexandra, Oamaru, and Tara Hills.

For further information, please contact:

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December 2017 mean temperature compared to the 30-year average (1981-2010 average).

Numerous mean daily temperature records were set across the country due to extended periods of dry, settled weather.

December 2017 was New Zealand's 2nd-warmest December on record (since 1909) using NIWA's seven-station series.

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